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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,848	02/18/2004	Yuuki Ojima	H6808.0039/P039	9446

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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L Street, NW
Washington, DC 20037

EXAMINER

SMITH, JOHNNIE L

ART UNIT PAPER NUMBER

2881

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 10/779,848	Applicant(s) OJIMA ET AL.	
	Examiner Johnnie L. Smith II	Art Unit 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0218</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-3 and 7 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility.

It is unclear whether applicant's claims 1-3, and 7 are methods or apparatuses.

Claims 1-3, and 7 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

((b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2003/0015660A1 (Shishido et al). In reference to claims 1-3 and 7, Shishido teaches all elements of the claims. More specifically, Shishido teaches a system for monitoring a semiconductor device manufacturing process, comprising: image acquiring means for acquiring an electron beam image of a pattern produced on the surface of a substrate by irradiating the substrate, on whose surface the pattern was produced by being subjected to a predetermined treatment process, with the electron beam by scanning; calculation means for calculating feature quantities of said pattern from the electron beam image of said pattern obtained by said image acquiring means; storage means for storing the reference database that describes a relationship between processing condition parameters in said predetermined treatment process and the feature quantities of the pattern produced on the substrate by the substrate being subjected to said predetermined treatment process; and monitoring means for monitoring a state of said predetermined treatment process by referring to both the feature quantities of the electron beam image of said pattern calculated by said calculation means for calculating the feature quantities and the relationship between the processing condition parameters and the feature quantities of the pattern described in the reference database stored in

said storage means. Shishido also discloses calculation methods for an edge detected by edge detection and creating a line profile from an SEM image (see fig 38, paragraphs 0019-0020, 0027-0030). Which as discussed above all elements of the claims. In reference to claim 4, Shishido teaches a scanning electron microscope with a measurement function wherein a measurement calculation method includes feature quantities.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20030015660A1 (Shishido et al). Shishido discussed above teaches all elements upon which claims 5 and 6 depend but fail to clearly disclose scanning electron microscope wherein the auto measurement parameter configuration window mainly consists of three window areas and wherein a measurement item is selected from another window having an area for displaying plural measurement items, and the selected item is entered in the auto measurement parameter configuration window. It would be obvious to one of ordinary skill in that art at the time of the invention to have the said display configuration since it is notoriously old in the computer programming art to have program specific window configurations, and one would be compelled to do so for the purpose of having a more organized window data display.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5,006,795 (Yoshizawa et al), US 6,172,363 (Shinada et al), US 5,659,172 (Wagner et al), US 20030010914A1 (Takane et al), US 20030111602A1 (Sato et al), US 20030141451A1 (Sato et al), US 20030219658A1 (Shishido et al), all contain art similar to that being claimed by

applicant, more specifically, systems and methods for monitoring semiconductor devices and manufacturing processes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L. Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JLSII

NIKITA WELLS
PRIMARY EXAMINER

Johnnie L Smith II
Examiner
Art Unit 2881

05/02/05